

A

6  
 269.80 2 5 4 1 3 BTB\_03049  
 229.80 6 5 1 2 4 SPB\_00387  
 259.85 4 3 2 1 1 EN\_00236  
 179.05 4 2 0 0 2 NRB\_00265

B

Fig. 1

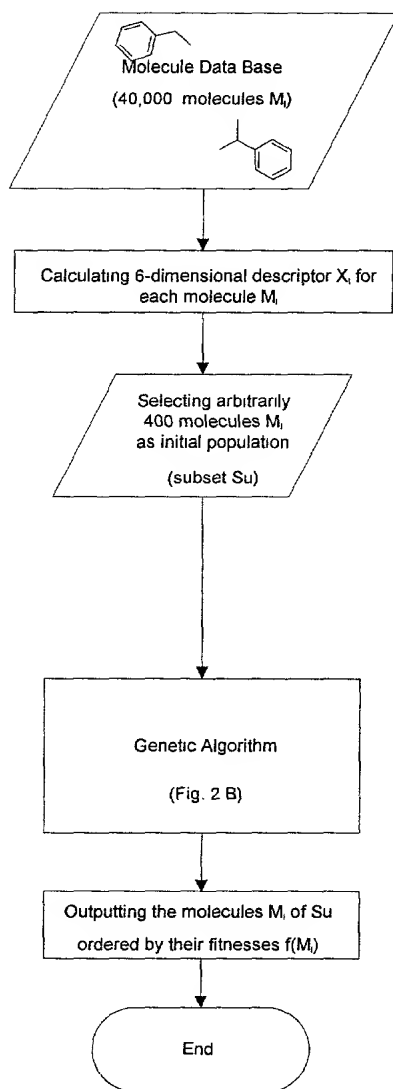


Fig. 2A

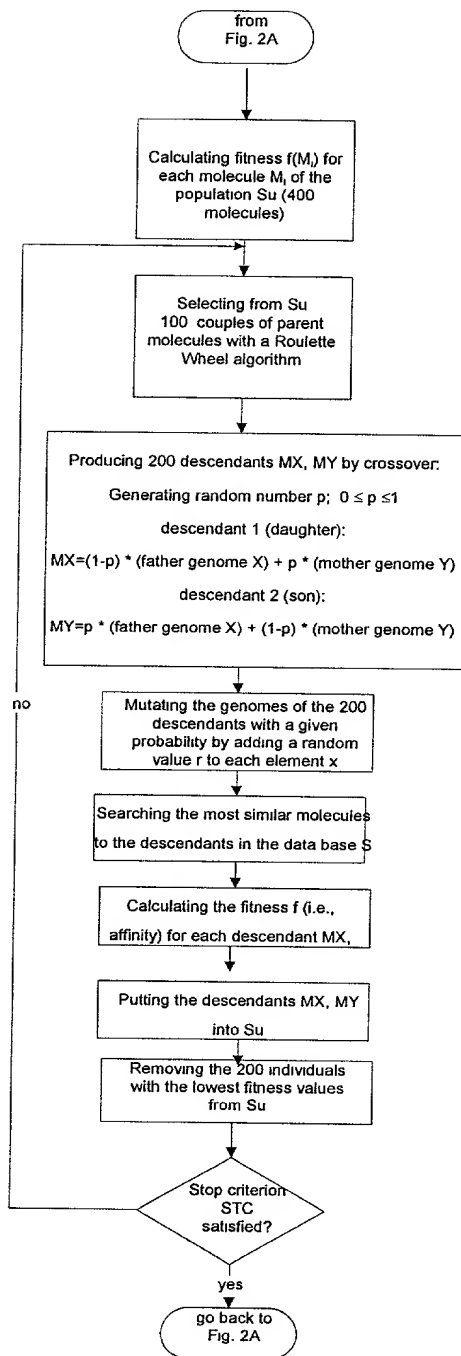


Fig. 2B

attribute	1	2	3	4	5	6
father genome X	0,7	0,4	0,1	0,5	0,2	0,9
mother genome Y	0,5	0,8	0,6	0,1	0,5	0,5
descendant 1 (son)	0,54	0,72	0,5	0,18	0,44	0,58
descendant 2 (daughter)	0,66	0,48	0,2	0,42	0,26	0,82

son =  $p \times (\text{father\_genom}) + (1-p) \times (\text{mother\_genom})$   
daughter =  $(1-p) \times (\text{father\_genom}) + p \times (\text{mother\_genom})$

**p=0.2**

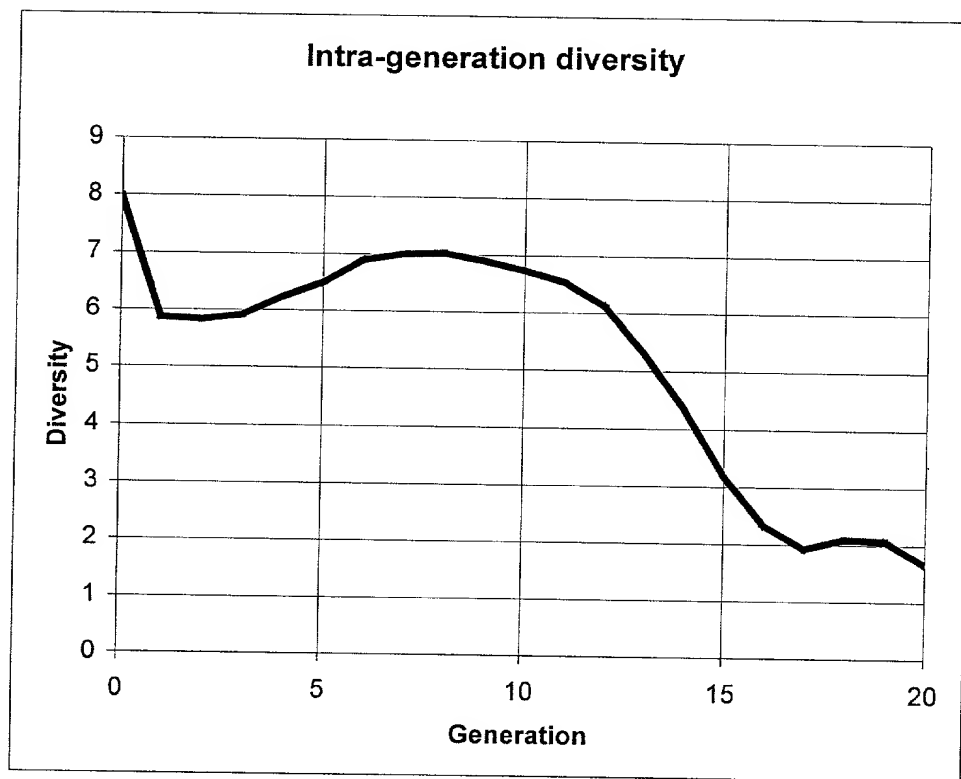


Fig. 4

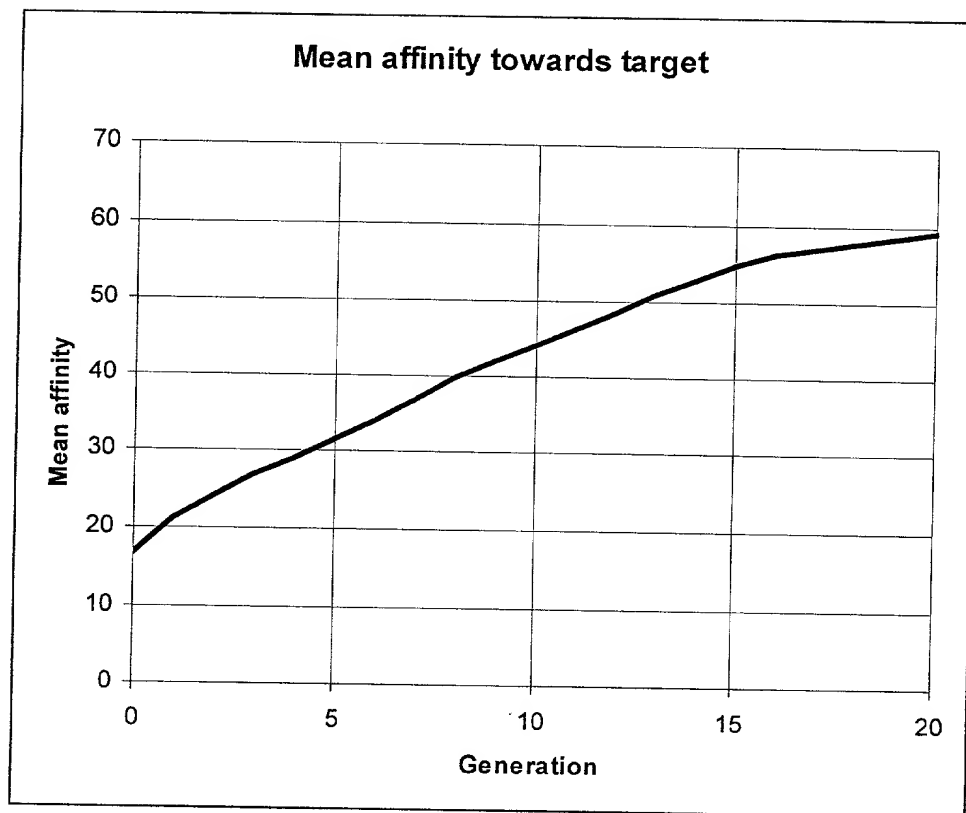


Fig.5

Economic Indicators		Social Indicators		Environmental Indicators		Health Indicators		Education Indicators		Infrastructure Indicators	
Indicator	Value	Indicator	Value	Indicator	Value	Indicator	Value	Indicator	Value	Indicator	Value
GDP (USD)	120.5	Life Expectancy (Years)	75.2	Air Quality Index	15.8	Infant Mortality Rate	12.5	Enrollment Rate (%)	95.1	Road Network (km)	150.3
Unemployment Rate (%)	8.2	Gender Equality Index	0.78	Water Pollution Index	22.1	Maternal Mortality Rate	18.9	Graduation Rate (%)	88.4	Internet Usage (%)	65.7
Inflation Rate (%)	3.5	Human Development Index	0.85	Deforestation Rate (%)	1.2	Under-5 Mortality Rate	10.1	Research & Development (%)	1.5	Power Generation (MW)	45.6
Interest Rate (%)	5.0	Trust in Government	0.65	Waste Recycling Rate (%)	45.3	Stillbirth Rate	25.4	Patent Applications	120.8	Urbanization Rate (%)	72.9
Exchange Rate (USD/Local)	1.25	Corruption Perception Index	0.55	Renewable Energy Share (%)	18.7	Neonatal Mortality Rate	15.2	Science & Tech Budget (%)	0.8	Population Growth Rate (%)	0.5
Trade Balance (USD)	15.2	Press Freedom Index	0.42	Carbon Footprint (kg/capita)	1.8	Prevalence of HIV (%)	0.3	High School Completion Rate (%)	78.9	Telephony Density (per 100)	110.5
FDI Inflow (USD)	25.8	Political Rights Score	7.8	Energy Consumption (kg oil eq/capita)	2.5	Prevalence of TB (%)	0.1	University Enrollment Rate (%)	65.3	Mobile Phone Usage (%)	85.2
FDI Outflow (USD)	10.1	Civil Liberties Score	8.2	Energy Efficiency Index	12.3	Prevalence of Malaria (%)	0.05	Research & Development Expenditure (%)	1.2	Banking Sector Growth (%)	15.6
Government Debt (USD)	180.5	Press Freedom Score	6.5	Energy Production (kg oil eq/capita)	2.1	Prevalence of Dengue (%)	0.02	Science & Tech Personnel (%)	0.5	Insurance Sector Growth (%)	12.3
Public Sector Debt (USD)	95.2	Press Freedom Score	6.5	Energy Production (kg oil eq/capita)	2.1	Prevalence of Zika (%)	0.01	Science & Tech Personnel (%)	0.5	Insurance Sector Growth (%)	12.3
Private Sector Debt (USD)	85.3	Press Freedom Score	6.5	Energy Production (kg oil eq/capita)	2.1	Prevalence of Zika (%)	0.01	Science & Tech Personnel (%)	0.5	Insurance Sector Growth (%)	12.3
Government Debt (USD)	180.5	Press Freedom Score	6.5	Energy Production (kg oil eq/capita)	2.1	Prevalence of Zika (%)	0.01	Science & Tech Personnel (%)	0.5	Insurance Sector Growth (%)	12.3
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Government Debt (USD)	180.5	Press Freedom Score	6.5	Energy Production (kg oil eq/capita)</							



100

Evaluated molecules per generation

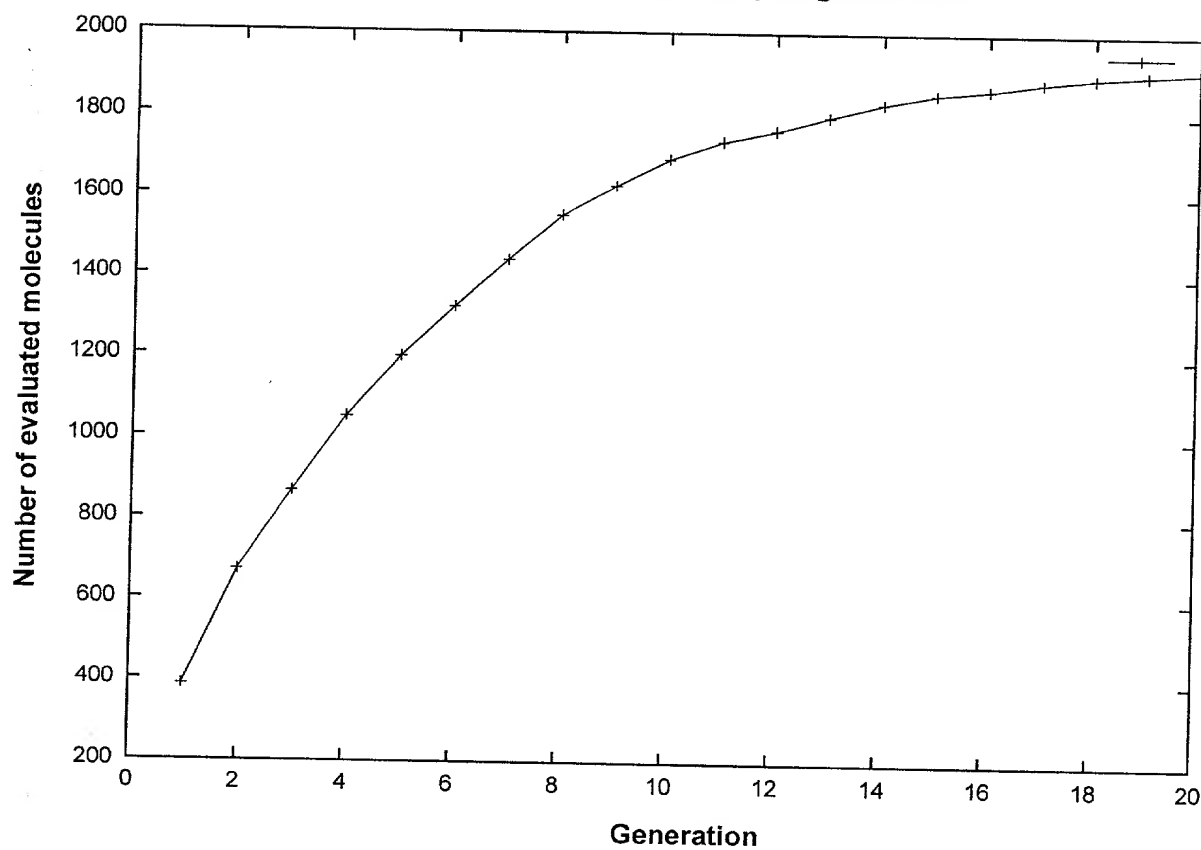


Fig. 7